Genesis International Medical Services

CT Indication - PROTOCOLS

BRAIN INDICATIONS	RECOMMENDED STUDY	COMMENTS
TIA's, Stroke, Hydrocephalus, R/O Bleed, Possible Bleed, HA, Code Stroke Dementia, Neuro Status Change	CT Contrast –W/O	Without contrast adequately shows brain for all of these indications.
Acute Bleed, Severe Headache Subarachnoid Hemorrhage, F/U Subdural Hematoma, F/U Subarachnoid Hemorrhage	CT Contrast – W/O	CT more sensitive than MRI for SAH. MRI may show source such as an AVM or aneurysm.
Brain Tumor, Suspected Brain Tumor, METS	CT Contrast – With contrast	Follow-up – with contrast only required.
Seizure	CT Contrast – W/O	If tumor or mass seen – do with and without
CNS Infection, Abscess, Meningitis, AIDS	CT Contrast – W/WO	MRI demonstrates abnormal meninges and other complications of infection.
Dementia, Neurodegenerative Disorder	CT Contrast – W/O	MRI demonstrates white matter changes of aging and acute and chronic infarcts, Parkinson's Disease, etc.
MS	CT Contrast – W/O	Acute plaques may show enhancement with MRI.
Trauma	CT preferred over MRI CT Contrast – W/O	CT is indicated for acute trauma. Trauma MRI more sensitive for nonsurgical trauma, Post Concussion Syndrome.
Cerebellar, Brainstem Lesion, Cranial Nerve Deficit, Diplopia	CT Contrast – With	MRI far superior in this region. If patient has no contra-indications.
Sensoryneural Hearing Loss, Tinnitus Acoustic Neuroma	MRI Contrast – W/WO (unless Limited IAC protocol W/O)	CT not accurate. Recommend High resolution MR non-contrasted Limited IAC protocol can R/O Acoustic Neuroma, but may miss other lesions.
Pituitary Tumor	MRI Contrast – W/WO	MRI far superior to CT.
Pediatric Anomaly, Pediatric Developmental Delay	CT Contrast – W/O	
R/O Aneurysm	CT Contrast W/WO	
Known Aneurysm	CTA Contrast – W/WO if unable to do MRI	MRI/MRA preferred if no contraindications.
SPINE INDICATIONS	**RECOMMENDED STUDY**	**COMMENTS**
Herniated Disc Cervical	Without or Post Myelogram	ALL SPINE STUDIES NEED TO BE ORDERED WITH CT RECONSTRUCTION
Lumbar Herniated disc	Without or Post Myelogram	
Stenosis	CT Contrast – W/O	CT can be adequate in lumbar spine if MRI contraindicated
Discitis/Osteo/CA	CT Contrast – W/O	MRI preferred to R/O Discitis/Osteo/CA. CT may be done post discogram – with contrast from fluoro.
Metastasis, Epidural Tumor	MRI preferred if not contra-indicated.	MRI also superior to myelography. MRI W/WO contrast.
Compression Fracture, Possible Tumor	Helical with CT Reconstruction w/o contrast	MRI allows evaluation of bone marrow.
Trauma	Helical with CT Reconstruction w/o contrast.	Area of interest – C-spine, Dorsal, Lumbar requested.
MUSCULOSKELETAL INDICATIONS	**RECOMMENDED STUDY**	**COMMENTS**
Fracture – Shoulder, Hand, Elbow, Wrist, Hip, Pelvis, Knee, Ankle, Heel, Foot, Toes	CT Contrast – W/O With CT Reconstruction	CT with 3D reconstruction useful in surgical planning. MRI if Radiographically occult fracture is suspected. CT if fracture is seen on x-ray and position or alignment is to be addressed. CT for avulsion or small cortical fractures.
Soft Tissue Mass	CT Contrast – With	
Bone Tumor	CT Contrast – W/O	Evaluates extent/neurovascular involvement. CT can be good for evaluating matrix type. With CT reconstruction if required.
Loose Bodies	CT Contrast – W/O	MRI can detect loose bodies in the presence of effusion. CT can detect ossified loose bodies. Patient may need arthrography followed by CT or MRI.

Pre-Procedure Lab Protocols

If Creatinine is elevated or Creatinine clearance is low, IV Contract may not be used per Radiologist Order.
Creatinine - Pre-Contrast administration if the patient is diabetic, over 40 years old, on chemo, multiple myeloma, Sickle Cell crisis
Biopsy Procedures - PT, PTT, CBC without diff.
Medical Kidney Biopsy - PT, PTT, CBC without diff, platelet function

REMINDER: VALID WRITTEN ORDER REQUIRES PATIENT NAME, EXAM ORDERED, INDICATION, DATE, AND PHYSICIAN SIGNATURE.

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BODY INDICATIONS	RECOMMENDED STUDY	COMMENTS
Pulmonary Embolus	CT PE Protocol (CT Chest) WITH IV	Most sensitive test available. If IV contrast is contraindicated or if patient has poor venous access, Nuclear Medicine V/Q scan/MRI with contrast.
Aortic Dissection	CT Chest and/or Abd for dissection WITH IV	
Nodule in chest	CT Contrast – W/WO	First study W/WO Contrast. If recheck, do without contrast.
Interstitial Lung Disease	CT Hi Resolution Chest – W/WO IV	Prone and Supine images.
Lung Mass, Pleural Effusion, cough, hemoptysis, infection, emphysema	CT Chest – With IV	Contrast preferred.
Acute Appendicitis	CT Appendicitis Protocol (CT Abd/Pelvis-WITH PO AND IV	Rectal contrast only if patient is unable to drink oral contrast.
Renal Stone	CT Renal Stone Protocol (CT Abd/Pelvis) W/O Contrast	Very accurate in detecting small calcified stones not seen on plain films along with associated changes such as hydro, perirenal edema, etc.
Hepatic Enzyme Dysfunction, cirrhosis, Elevated LFT, hepatoma, fatty liver	CT Tri-phasic Liver Protocol with PO and with without IV	Detects fatty tumors and hepatic masses and hemangioma. MRI may be indicated in selected cases.
Diverticulitis	CT Abd/Pelvis With PO and IV	
Abscess, FUO	CT Abd/Pelvis With PO and IV	Abdomen or liver, pelvis or abdomen pelvis, no known area.
Renal Mass, Hematuria	CT Renal Mass Protocol –W/WO iv only	MRI if iodinated contrast contraindicated.
Difficulty swallowing, possible esophagus mass	Chest with PO and IV contrast (BA) paste	Sometimes combined with abdomen with PO and IV.
Esophageal tear	Chest with IV	No oral contrast
Abdomen for adrenal mass or cyst	With PO contrast and W/WO IV contrast.	
Abdominal Pain, Bloating, Fluid build up, Lower extremity swelling	CT Contrast – W Oral and IV	Specify quadrant of pain if possible. If pain below iliac crest – abdomen and pelvis should be ordered with contrast
Pancreatic Mass, Pancreatitis	CT Pancreatic Protocol Tri-phasic – PO & W/WO IV. (CT Abd)	
Kidney, ureter, bladder (urogram), unexplained hematuria	Po contrast and W/WO IV (CT Abd/Pelvis)	KUB to be ordered along with study and to follow immediately after CT.
Aneurysm of Aorta, AAA	With or Without IV contrast	Can be done with chest, abdomen and pelvis to evaluate AAA and Thoraco-Abdominal Aneurysm.
Aorta CT Angiogram	W/WO IV contrast only	No PO contrast on angiogram. Aorta Angiogram Abdomen and Pelvis with and without IV contrast, with computer reconstruction. Abdomen and pelvis to evaluate AAA with IV only. No reconstruction.
Renal CT Angiogram	Abd W/WO IV contrast	Renal Stenosis, Hypertension, Renal Mass with CT reconstruction.
CT Colonography	No contrast. Air only – Prone and Supine. (CT Abd/Pelvis)	Usually immediately after colonoscopy. Patient must be properly prepped for colonoscopy. 2-3 day prep
CT Abd & Pelvis for GI bleed	With IV contrast only	For diagnosis of GI bleed.
CT Venogram Abd/Pelvis, Bilat Thighs	With IV only	Patient must have symptoms – re: pain to be recognized as medically necessary
ENT/HEAD & NECK INDICATIONS	**RECOMMENDED STUDY**	**COMMENTS**
Sinusitis	WO Contrast	CT defines ostial obstruction, bony changes. Coronal only or full series depending on degree of pathology
Nasopharynx, Tongue, Floor of Mouth, Neck Mass, Soft Tissue Neck	CT Contrast – With	W/WO if stone is suspected.
Temporal Bone	CT WO contrast	
Skull base	CT WO contrast	
Orbit Proptosis, orbit or eye swelling (infection)	CT Contrast – with IV only	MRI in special situations.
Optic Nerves Visual Field Defect	MRI >CT – Contrast - With	Orbit MRI for optic neuritis. Brain for visual field defect.
Facial/Orbital Trauma	WO contrast	
Carotid Stenosis	CTA W/WO IV contrast	CT computer reconstruction – metal in mouth can limit study. Conventional MRI if not contraindicated